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United States Patent [19]**Günther et al.**[11] **Patent Number:** **5,736,595**[45] **Date of Patent:** ***Apr. 7, 1998**[54] **POLYMER COMPOSITION, ABSORBENT MATERIAL COMPOSITION, THEIR PRODUCTION AND THEIR USE**[75] **Inventors:** **Uwe Günther, Tönisvorst; Helmut Klimmek, Krefeld; Helmut Brüggemann, Duisburg, all of Germany**[73] **Assignee:** **Chemische Fabrik Stockhausen GmbH, Krefeld, Germany**[*] **Notice:** The term of this patent shall not extend beyond the expiration date of Pat. No. 5,721,295.[21] **Appl. No.:** **535,070**[22] **PCT Filed:** **May 3, 1993**[86] **PCT No.:** **PCT/EP93/01062**§ 371 Date: **Nov. 3, 1995**§ 102(c) Date: **Nov. 3, 1995**[87] **PCT Pub. No.:** **WO94/25521****PCT Pub. Date: Nov. 10, 1994**[51] **Int. Cl.⁶** **C08L 1/26; C08L 3/08; C08L 5/00**[52] **U.S. Cl.** **524/45; 524/44; 524/43; 524/47; 524/55; 524/35; 524/28**[58] **Field of Search** **524/56, 43-45, 524/47, 55, 312, 310, 405, 394, 398-399, 400, 13, 28, 50, 35, 42, 57; 424/461, 462, 469, 484; 523/124, 126, 128; 604/358, 365, 367, 372, 374**[56] **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—Peter A. Szekely*Attorney, Agent, or Firm*—Foley & Lardner[57] **ABSTRACT**

A polymer composition, a process for the production of a polymer composition, in particular of an absorbent, are disclosed which substantially consist of a special component A based on renewable polysaccharide raw materials, a special component B consisting of a water-soluble polymer, a matrix material, an ionic and/or covalent cross-linking agent, or an anti-blocking agent, which is obtainable in that the water-swellaable polymer is brought together with the polysaccharide polymer, that these are dried and ground then, the other components are added, and mixing up to homogeneity is effected followed by a heat treatment, and that during the addition of the cross-linking agent, after said heat treatment, the same is optionally fixed by the matrix by means of a final heat treatment.

Additionally the use of this polymer composition and (animal) hygiene items and chemico-technical products are disclosed which comprise a previously manufactured polymer composition.

38 Claims, No Drawings